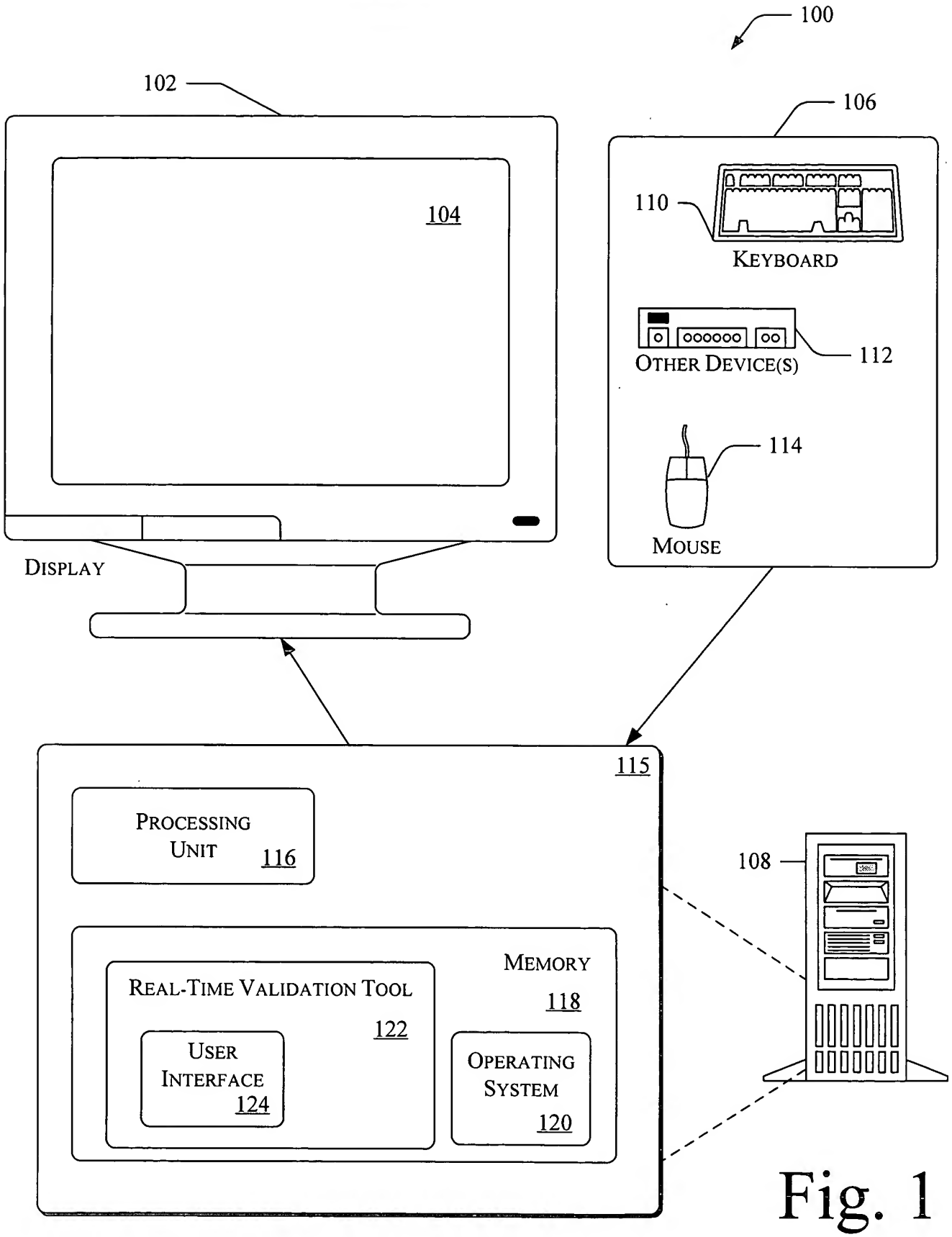
100
102
104
106
110
KEYBOARD
OTHER DEVICE(S)
112
114
MOUSE
DISPLAY
115
PROCESSING UNIT 116
MEMORY 118
REAL-TIME VALIDATION TOOL 122
USER INTERFACE 124
OPERATING SYSTEM 120
108

Fig. 1

Fig. 2

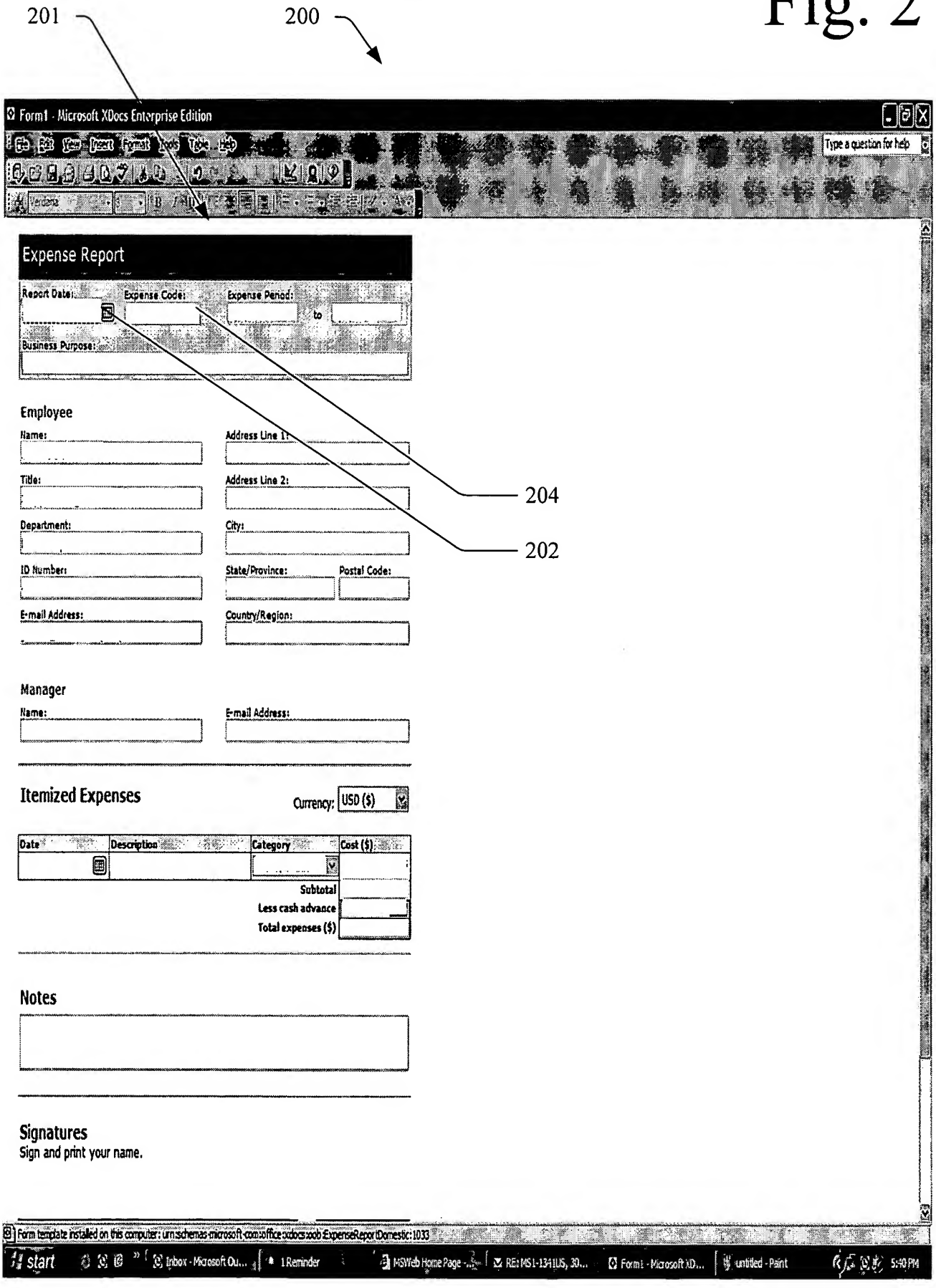
201
200
Form1 - Microsoft XDocs Enterprise Edition
Type a question for help
Expense Report
Report Date:
Expense Code:
Expense Period:
to
Business Purpose:
Employee
Name:
Address Line 1:
Title:
Address Line 2:
Department:
City:
ID Number:
State/Province:
Postal Code:
E-mail Address:
Country/Region:
Manager
Name:
E-mail Address:
Itemized Expenses
Currency:
USD ($)
Date
Description
Category
Cost ($)
Subtotal
Less cash advance
Total expenses ($)
Notes
Signatures
Sign and print your name.
204
202
Form template installed on this computer: urn:schemas-microsoft-com:office:xdocs:xob:ExpenseReport:Domestic:1033
start
Inbox - Microsoft Ou...
1 Reminder
MSWeb Home Page -
RE: MS1-1341US, 30...
Form1 - Microsoft XD...
untitled - Paint
5:40 PM

Fig. 3

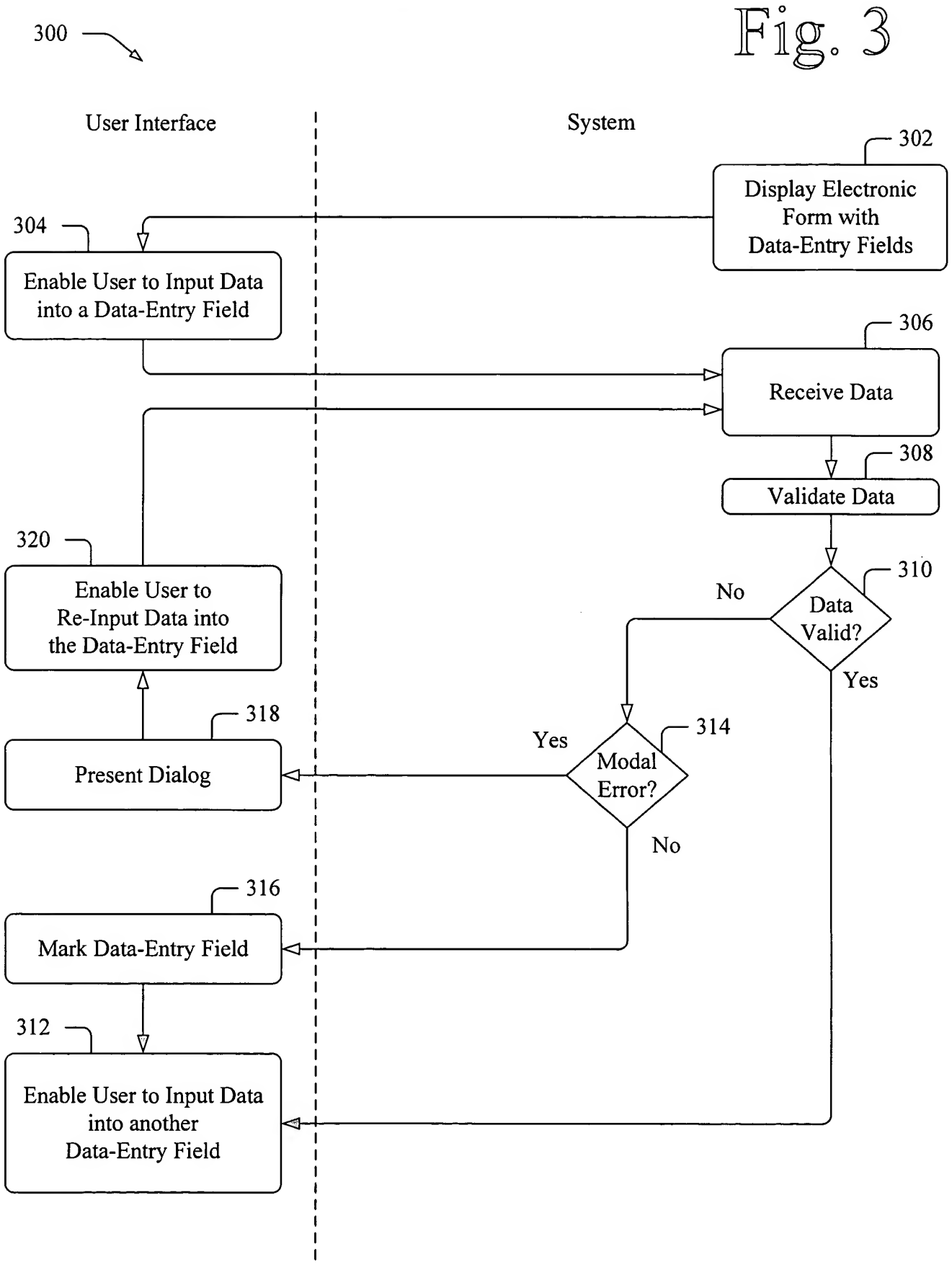
300
User Interface
System
302
Display Electronic Form with Data-Entry Fields
304
Enable User to Input Data into a Data-Entry Field
306
Receive Data
308
Validate Data
310
Data Valid?
No
Yes
320
Enable User to Re-Input Data into the Data-Entry Field
318
Present Dialog
314
Modal Error?
Yes
No
316
Mark Data-Entry Field
312
Enable User to Input Data into another Data-Entry Field

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Fig. 4

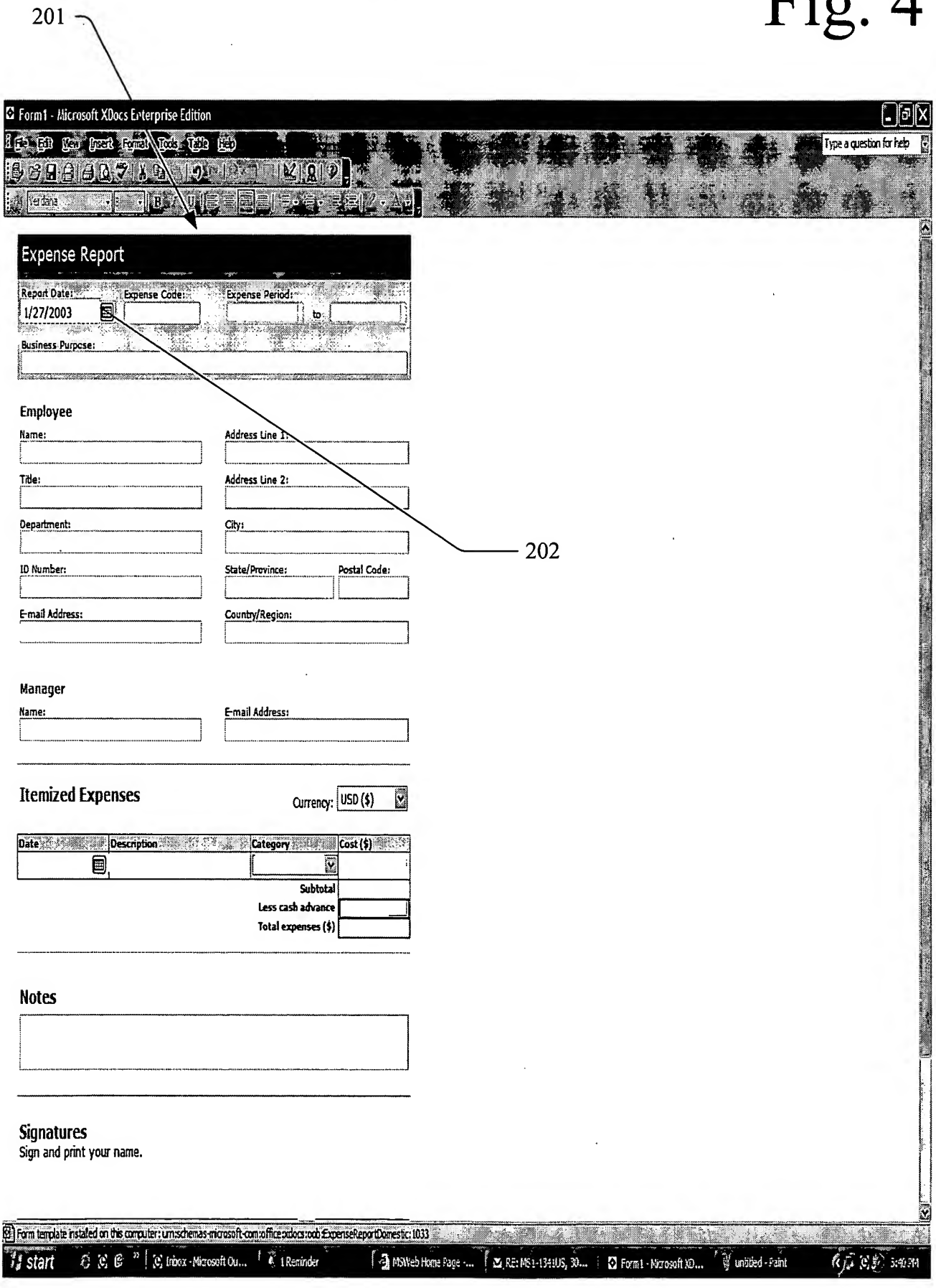

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Fig. 5

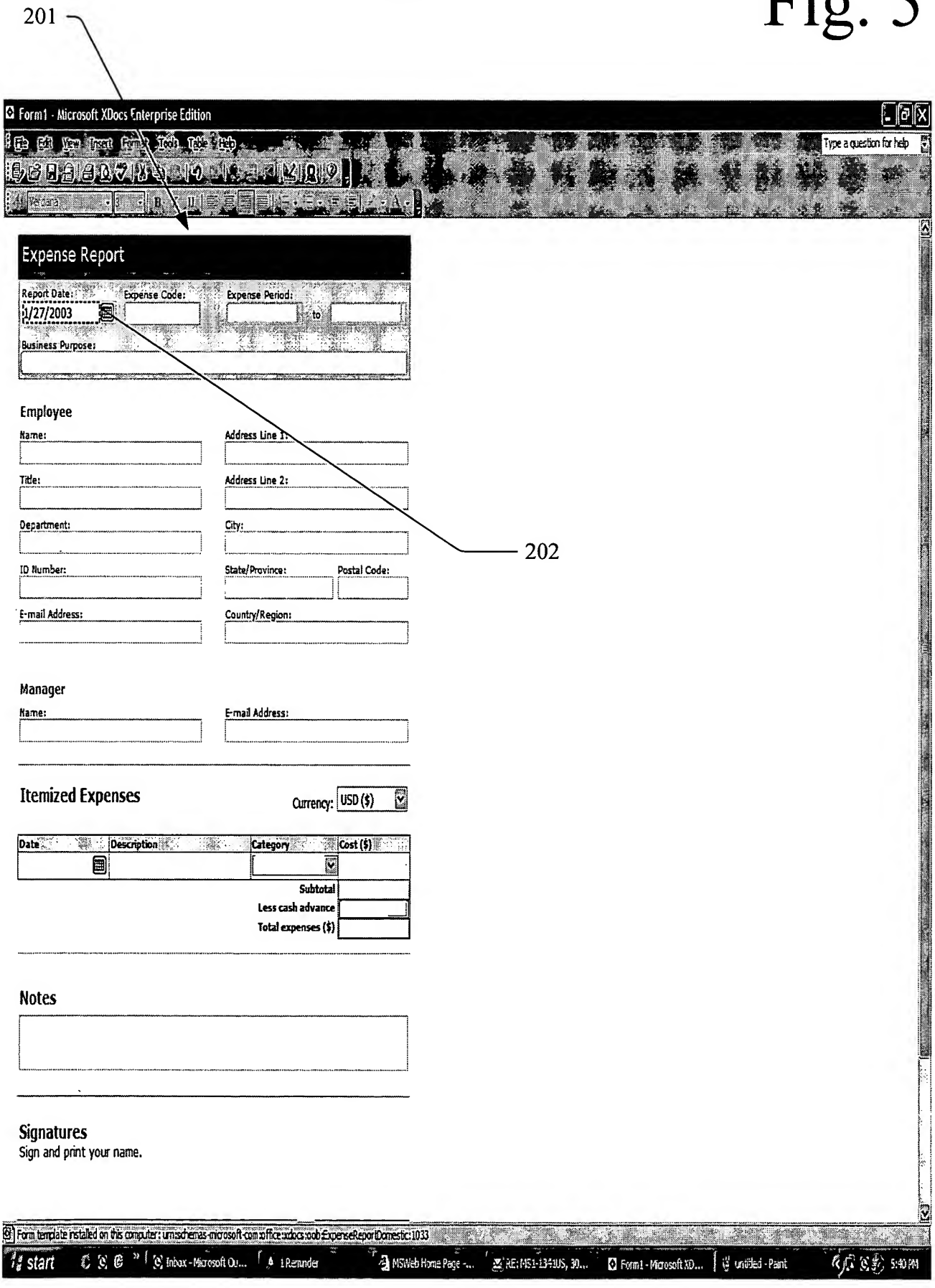

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Fig. 6

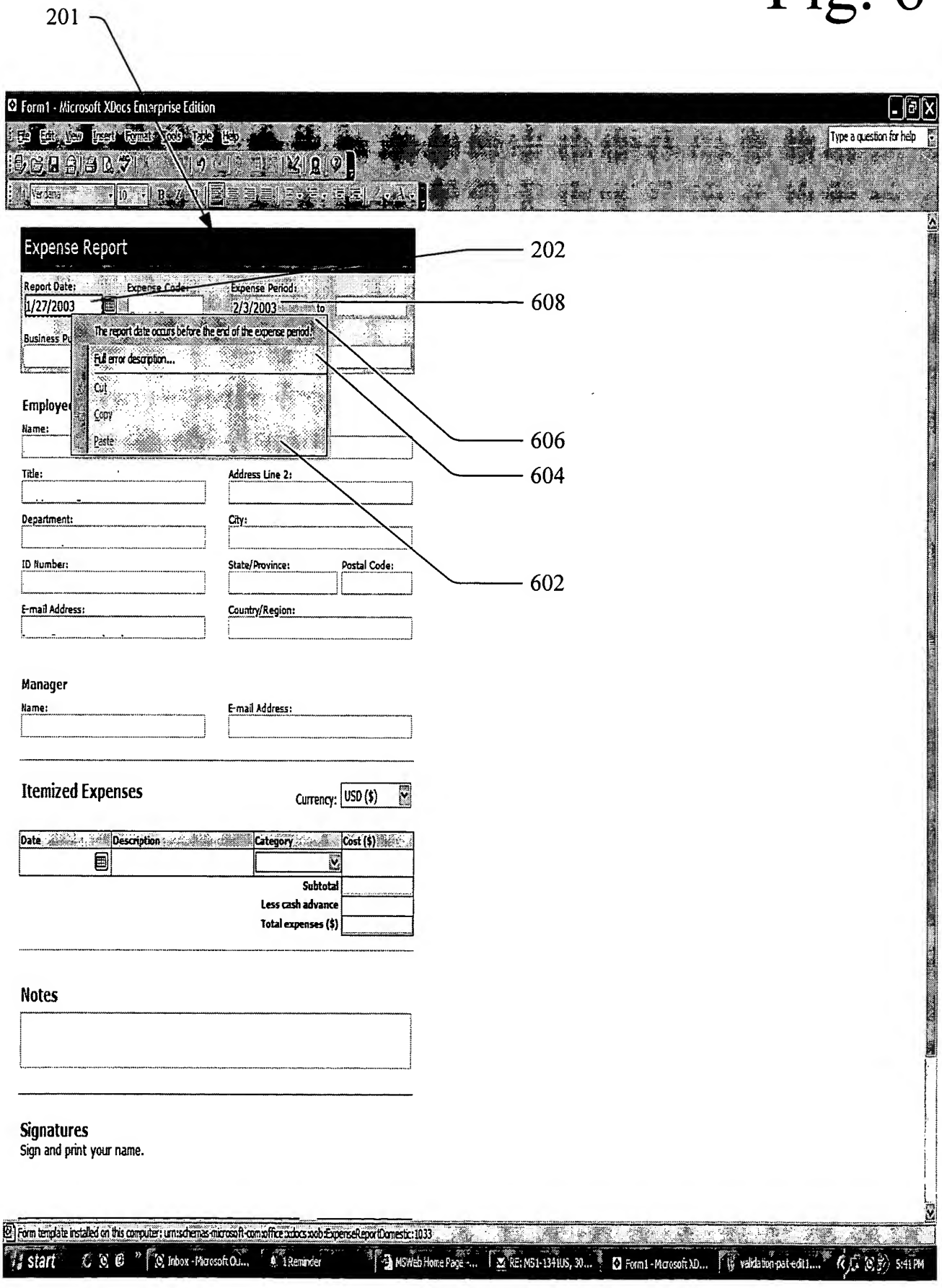

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Fig. 7

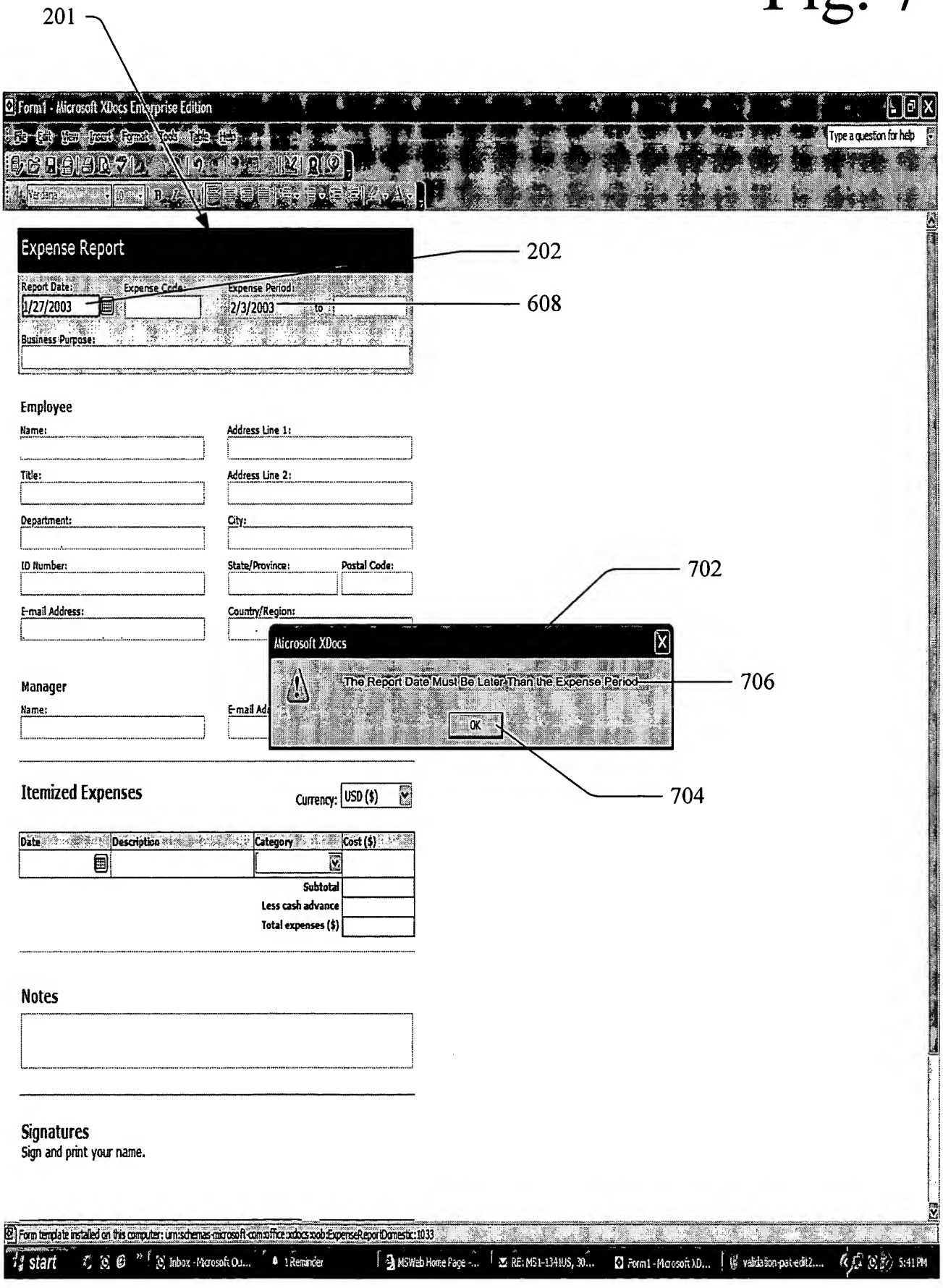

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Fig. 8

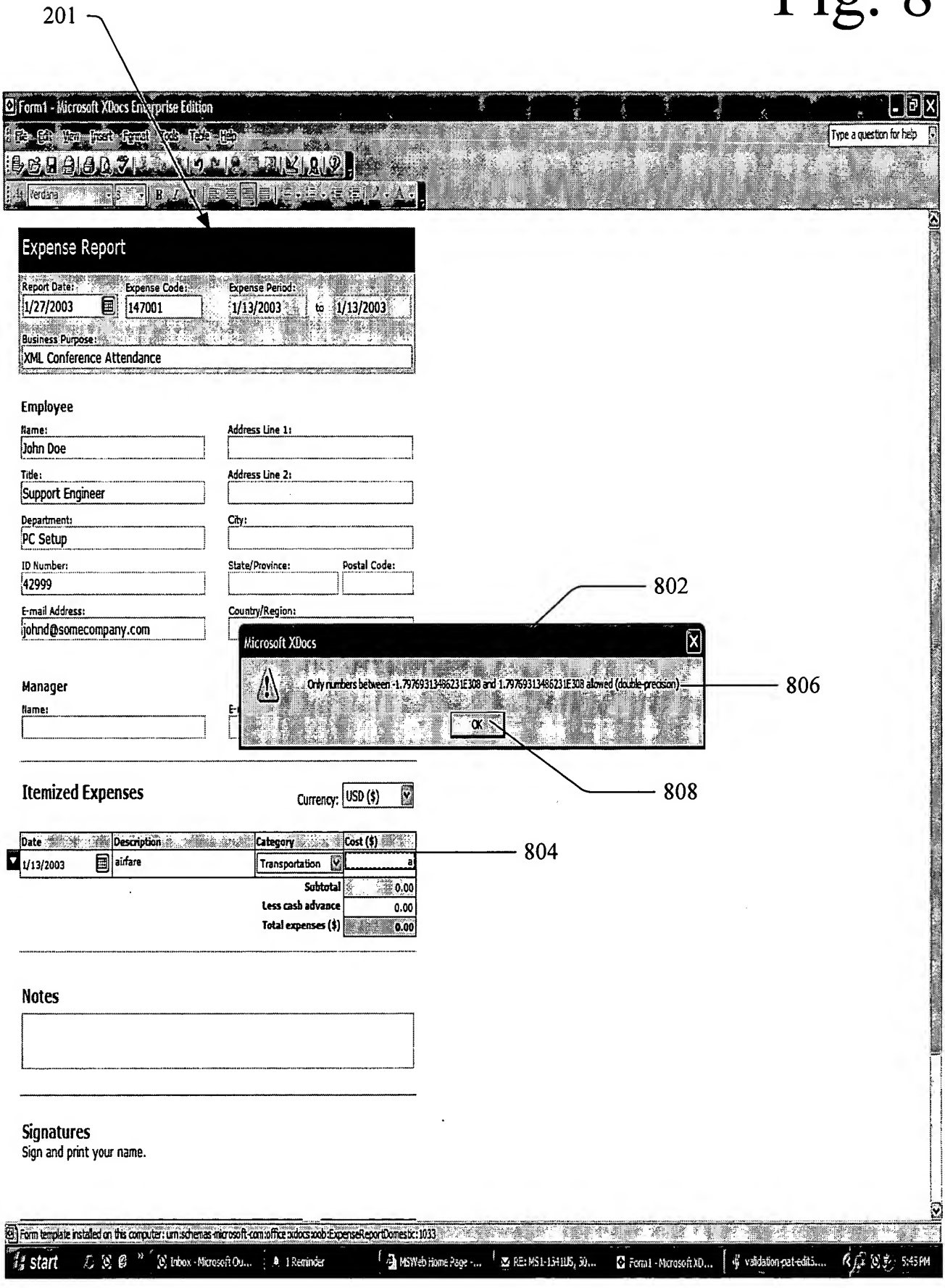

Fig. 9

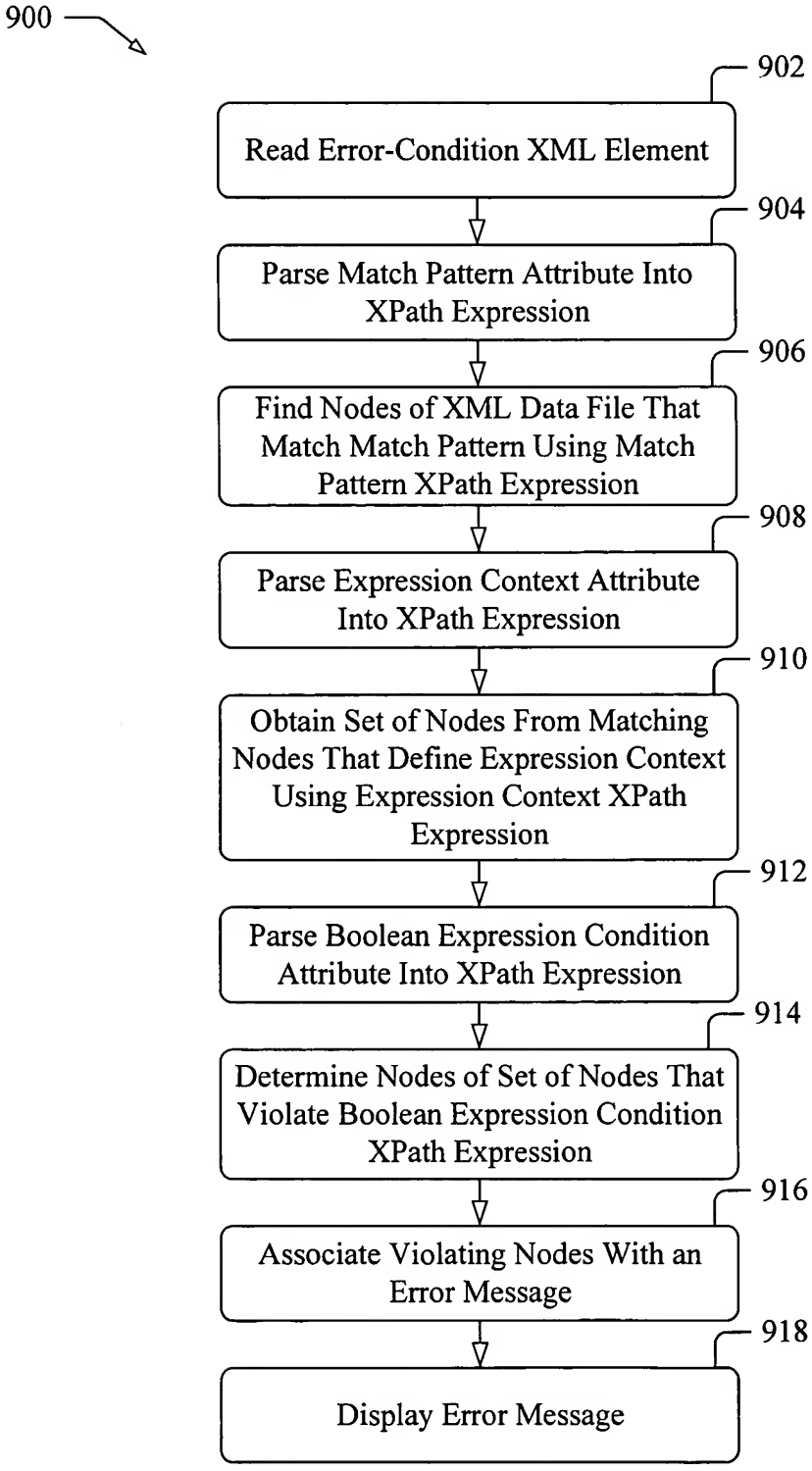
900
902
Read Error-Condition XML Element
904
Parse Match Pattern Attribute Into XPath Expression
906
Find Nodes of XML Data File That Match Match Pattern Using Match Pattern XPath Expression
908
Parse Expression Context Attribute Into XPath Expression
910
Obtain Set of Nodes From Matching Nodes That Define Expression Context Using Expression Context XPath Expression
912
Parse Boolean Expression Condition Attribute Into XPath Expression
914
Determine Nodes of Set of Nodes That Violate Boolean Expression Condition XPath Expression
916
Associate Violating Nodes With an Error Message
918
Display Error Message

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Fig. 10

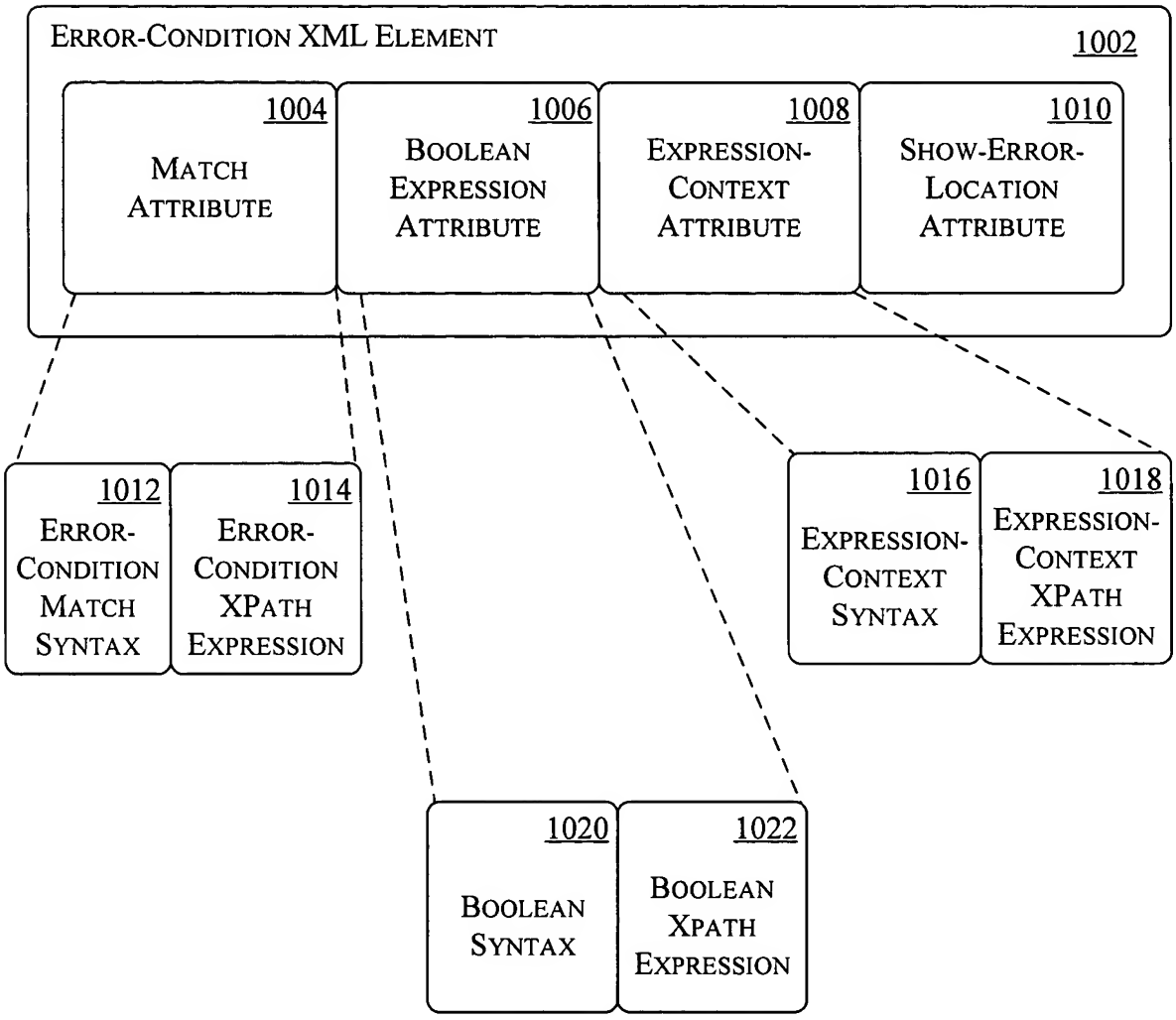

Fig. 11

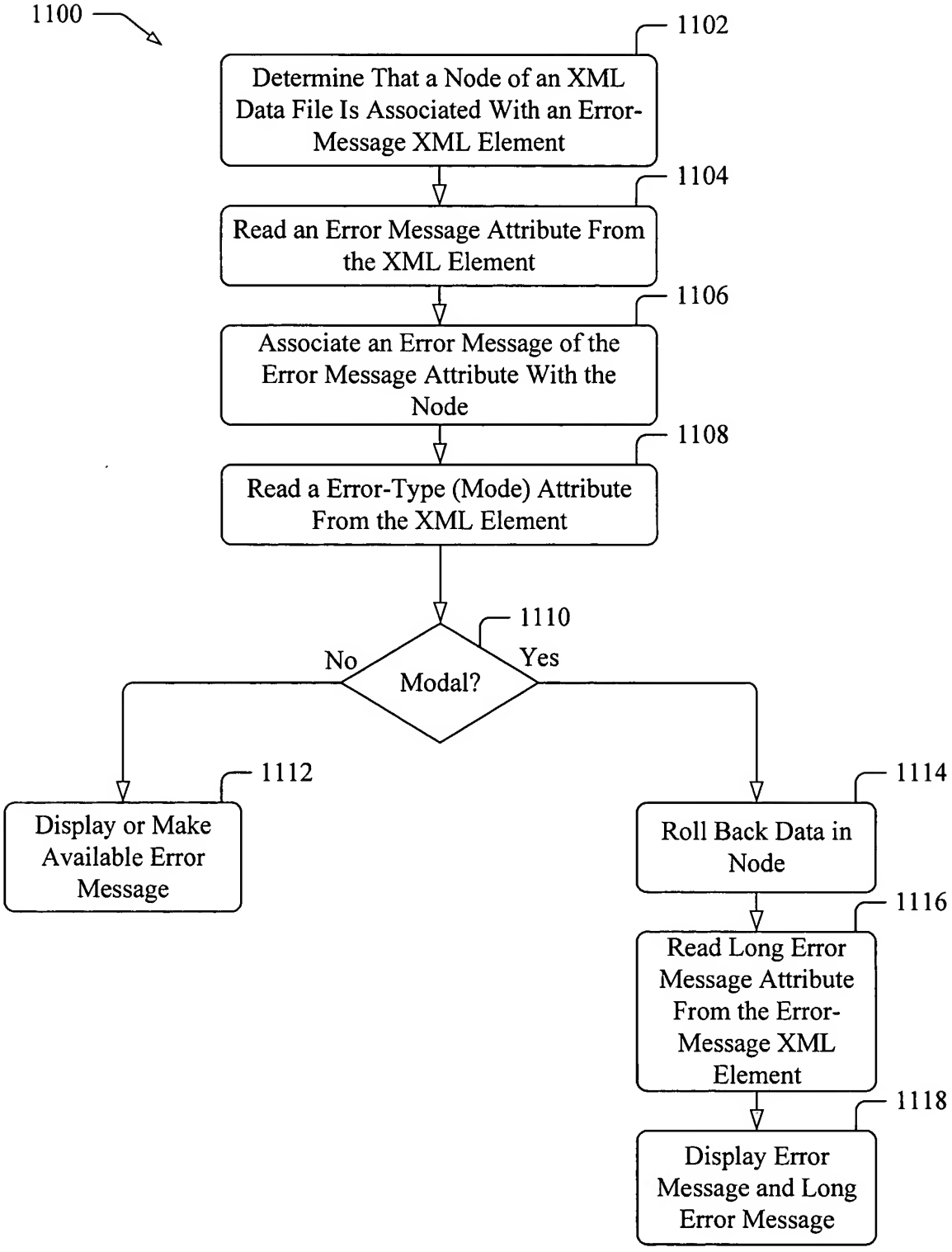
1100
1102
Determine That a Node of an XML Data File Is Associated With an Error-Message XML Element
1104
Read an Error Message Attribute From the XML Element
1106
Associate an Error Message of the Error Message Attribute With the Node
1108
Read a Error-Type (Mode) Attribute From the XML Element
1110
Modal?
No
Yes
1112
Display or Make Available Error Message
1114
Roll Back Data in Node
1116
Read Long Error Message Attribute From the Error-Message XML Element
1118
Display Error Message and Long Error Message

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Fig. 12

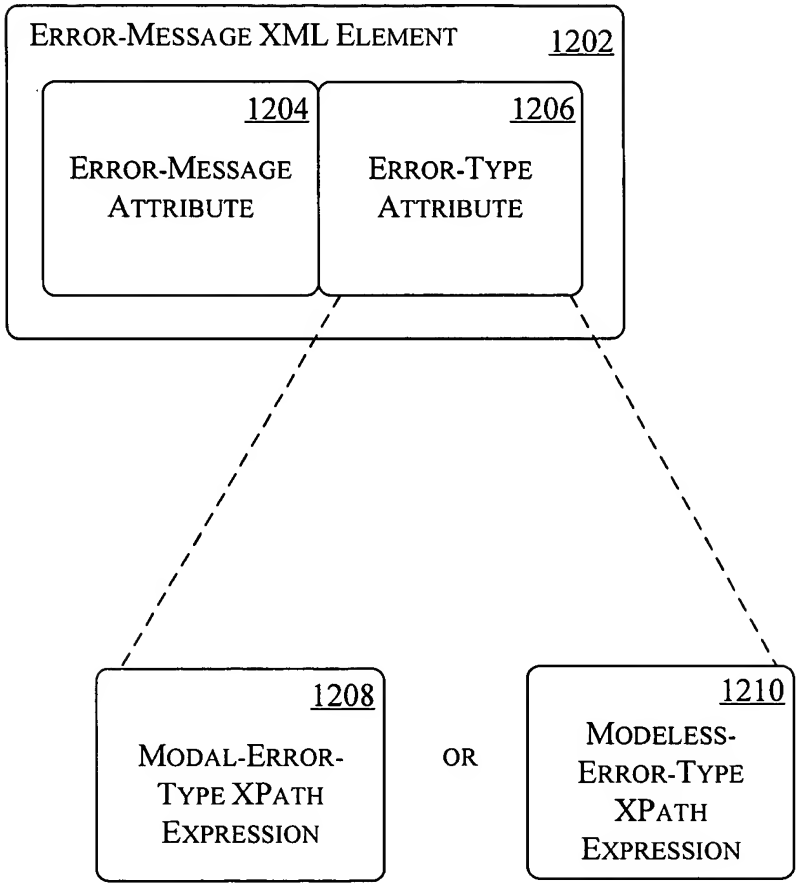

Fig. 13

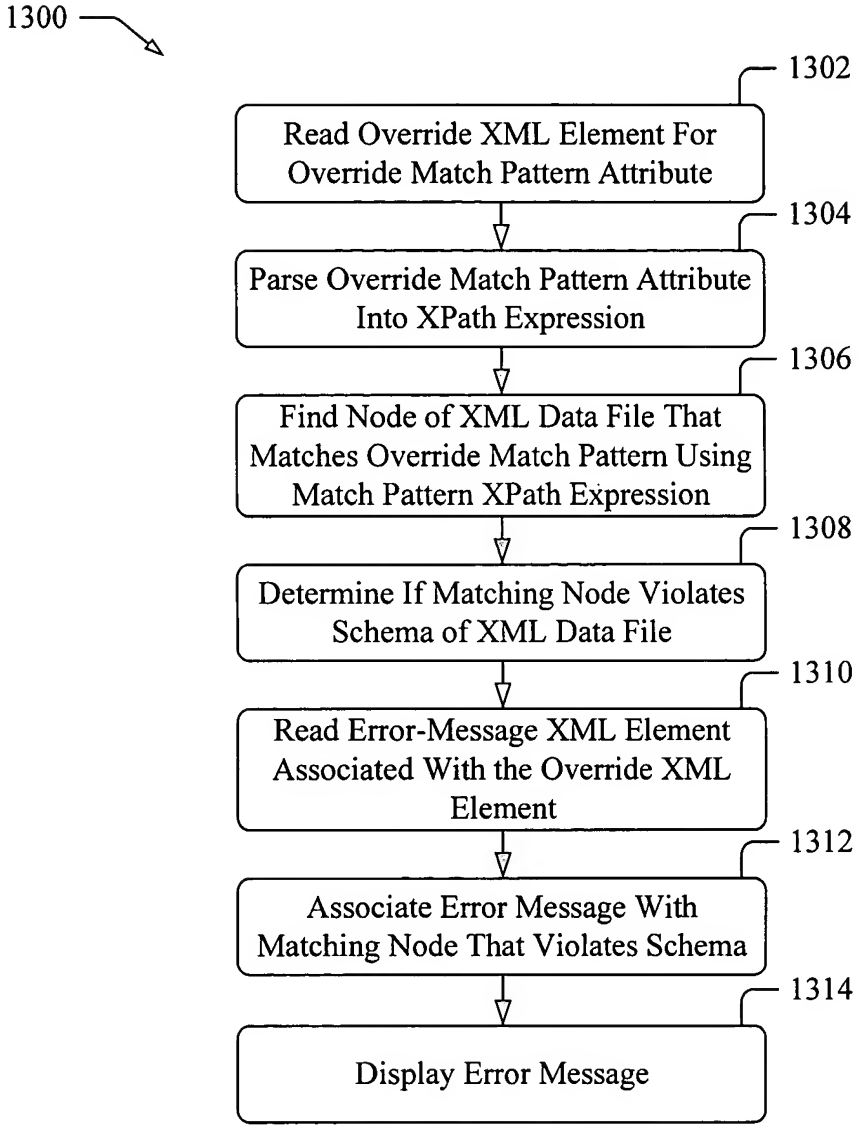
1300
1302
Read Override XML Element For Override Match Pattern Attribute
1304
Parse Override Match Pattern Attribute Into XPath Expression
1306
Find Node of XML Data File That Matches Override Match Pattern Using Match Pattern XPath Expression
1308
Determine If Matching Node Violates Schema of XML Data File
1310
Read Error-Message XML Element Associated With the Override XML Element
1312
Associate Error Message With Matching Node That Violates Schema
1314
Display Error Message

Fig. 14

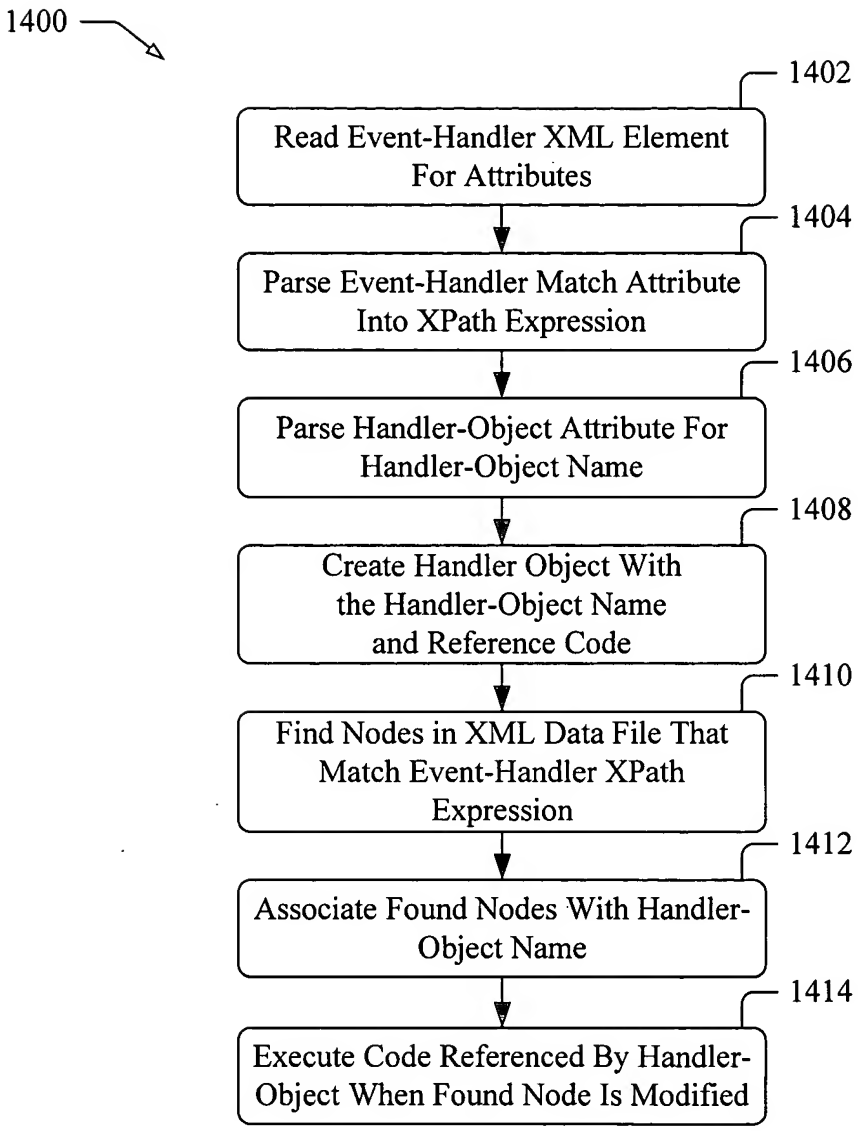
1400
1402
Read Event-Handler XML Element For Attributes
1404
Parse Event-Handler Match Attribute Into XPath Expression
1406
Parse Handler-Object Attribute For Handler-Object Name
1408
Create Handler Object With the Handler-Object Name and Reference Code
1410
Find Nodes in XML Data File That Match Event-Handler XPath Expression
1412
Associate Found Nodes With Handler-Object Name
1414
Execute Code Referenced By Handler-Object When Found Node Is Modified

Fig. 15

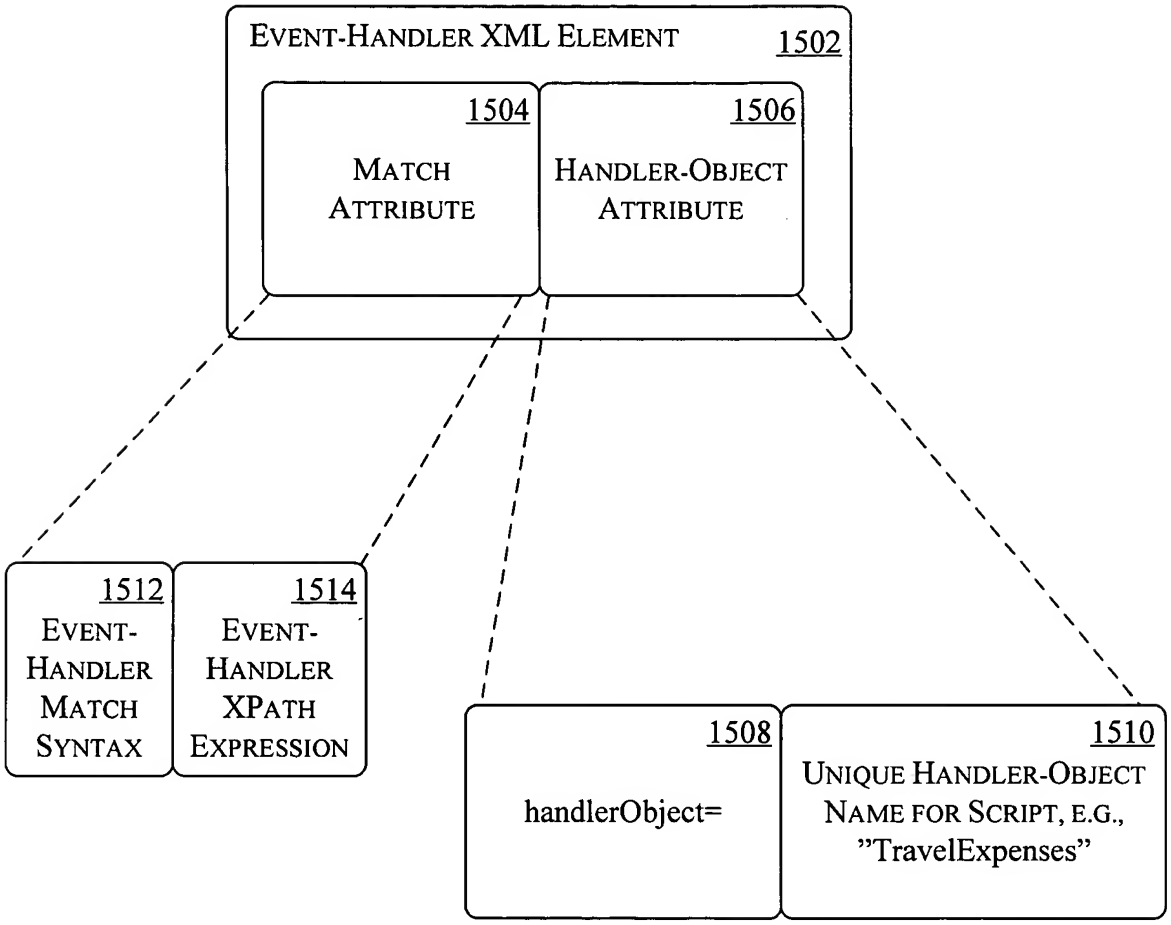
EVENT-HANDLER XML ELEMENT
1502
1504
MATCH ATTRIBUTE
1506
HANDLER-OBJECT ATTRIBUTE
1512
EVENT-HANDLER MATCH SYNTAX
1514
EVENT-HANDLER XPATH EXPRESSION
1508
handlerObject=
1510
UNIQUE HANDLER-OBJECT NAME FOR SCRIPT, E.G., "TravelExpenses"

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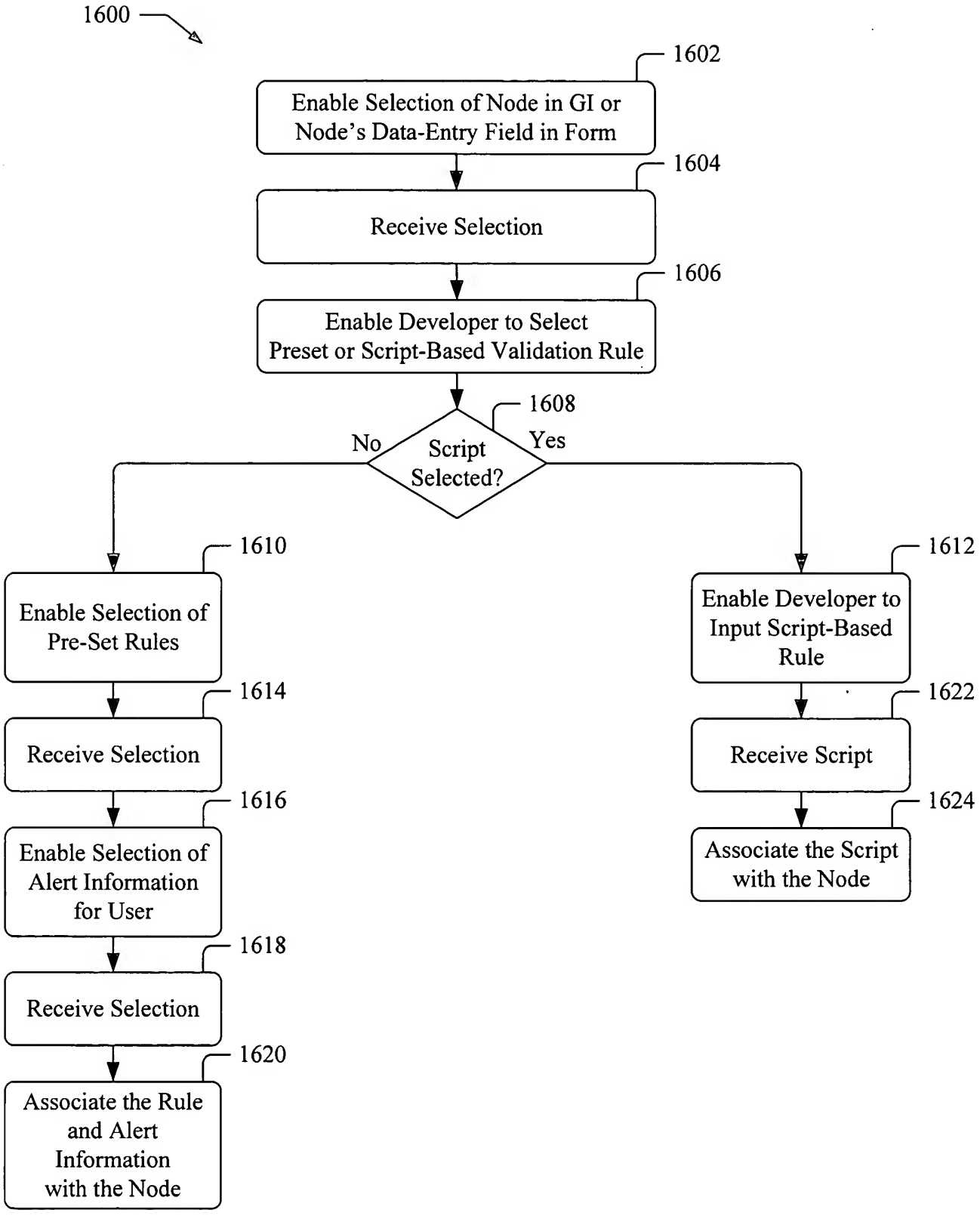
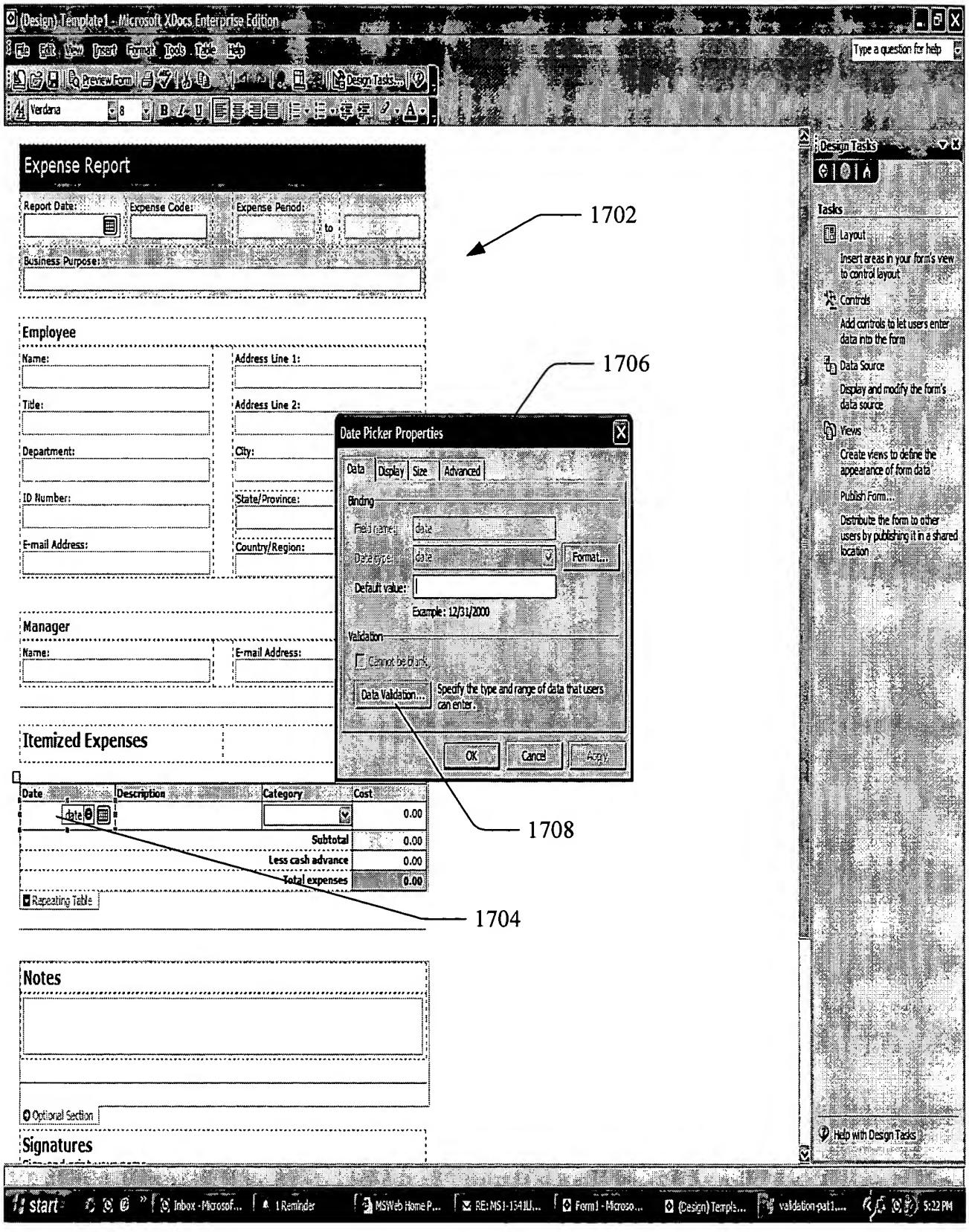
Fig. 16



1700

Fig. 17


(Design) Template1 - Microsoft XDocs Enterprise Edition
Expense Report
Report Date:
Expense Code:
Expense Period:
to
Business Purpose:
1702
Employee
Name:
Title:
Department:
ID Number:
E-mail Address:
Address Line 1:
Address Line 2:
City:
State/Province:
Country/Region:
1706
Date Picker Properties
Data
Display
Size
Advanced
Binding
Field name:
Data type:
Format...
Default value:
Example: 12/31/2000
Validation
Cannot be blank
Data Validation...
Specify the type and range of data that users can enter.
OK
Cancel
Apply
Manager
Name:
E-mail Address:
Itemized Expenses
Date
Description
Category
Cost
0.00
Subtotal
0.00
Less cash advance
0.00
Total expenses
0.00
Repeating Table
1708
1704
Notes
Optional Section
Signatures
Design Tasks
Tasks
Layout
Insert areas in your form's view to control layout
Controls
Add controls to let users enter data into the form
Data Source
Display and modify the form's data source
Views
Create views to define the appearance of form data
Publish Form...
Distribute the form to other users by publishing it in a shared location
Help with Design Tasks
start
5:22 PM

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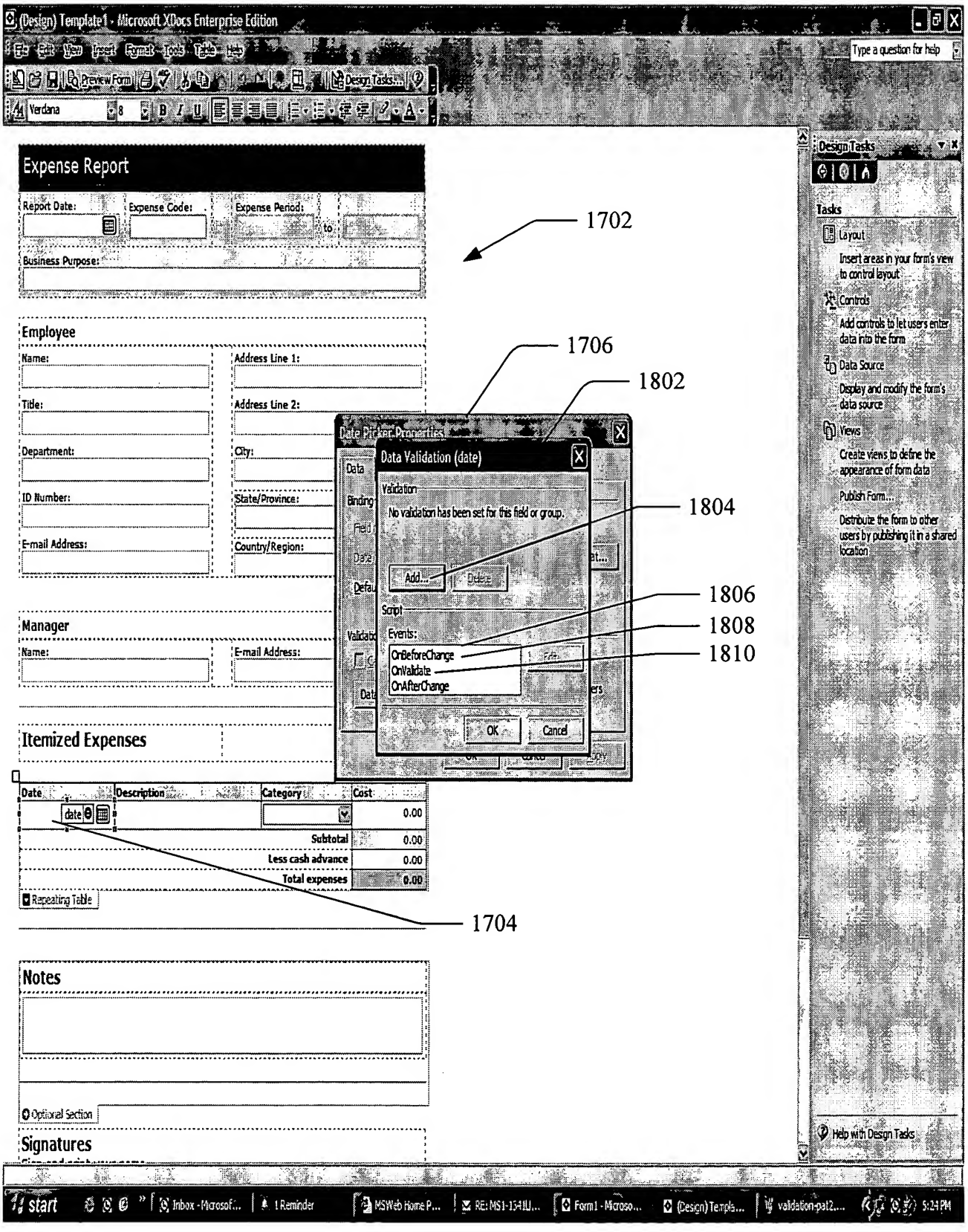
1800

Fig. 18



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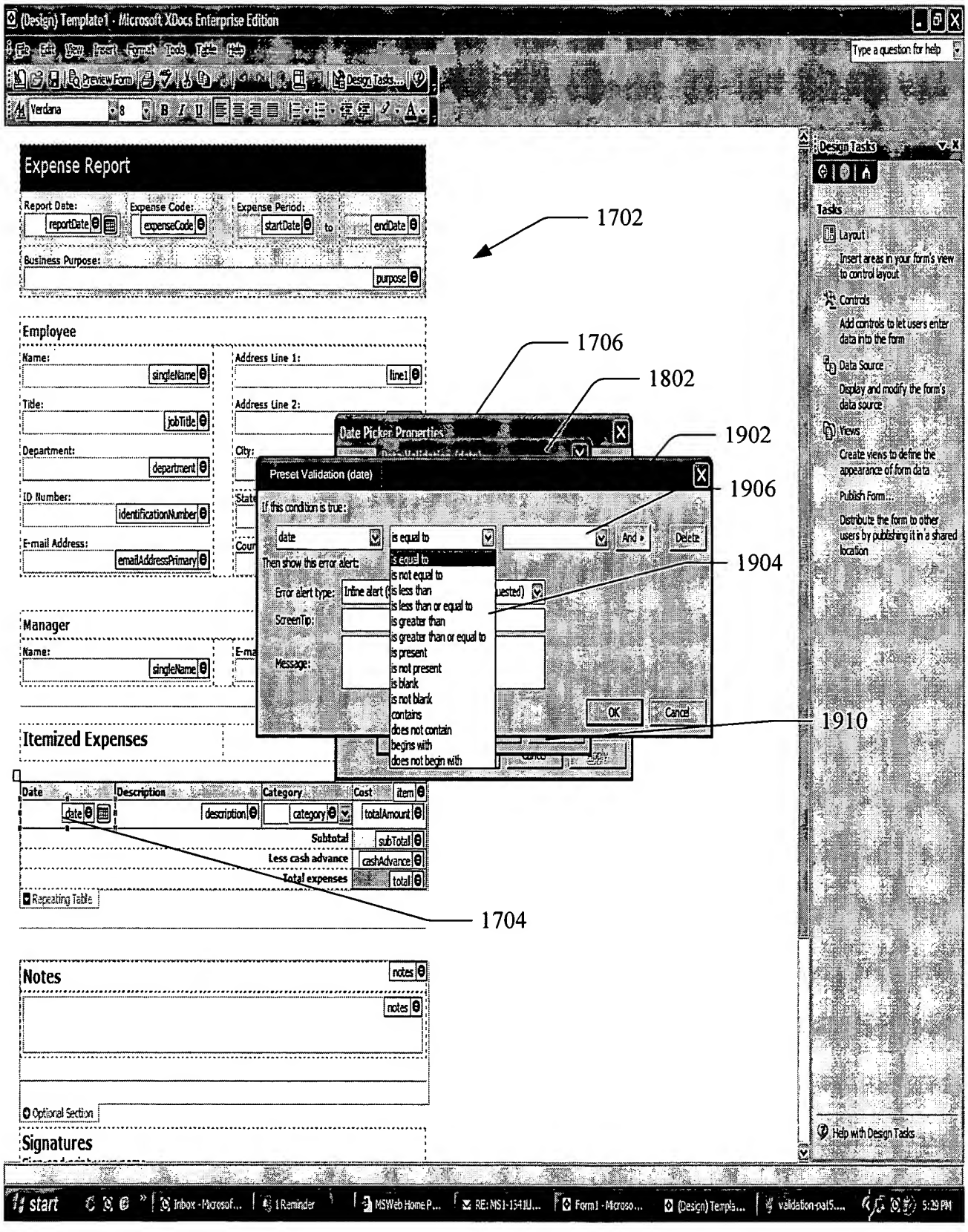
1900

Fig. 19



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2000

Fig. 20

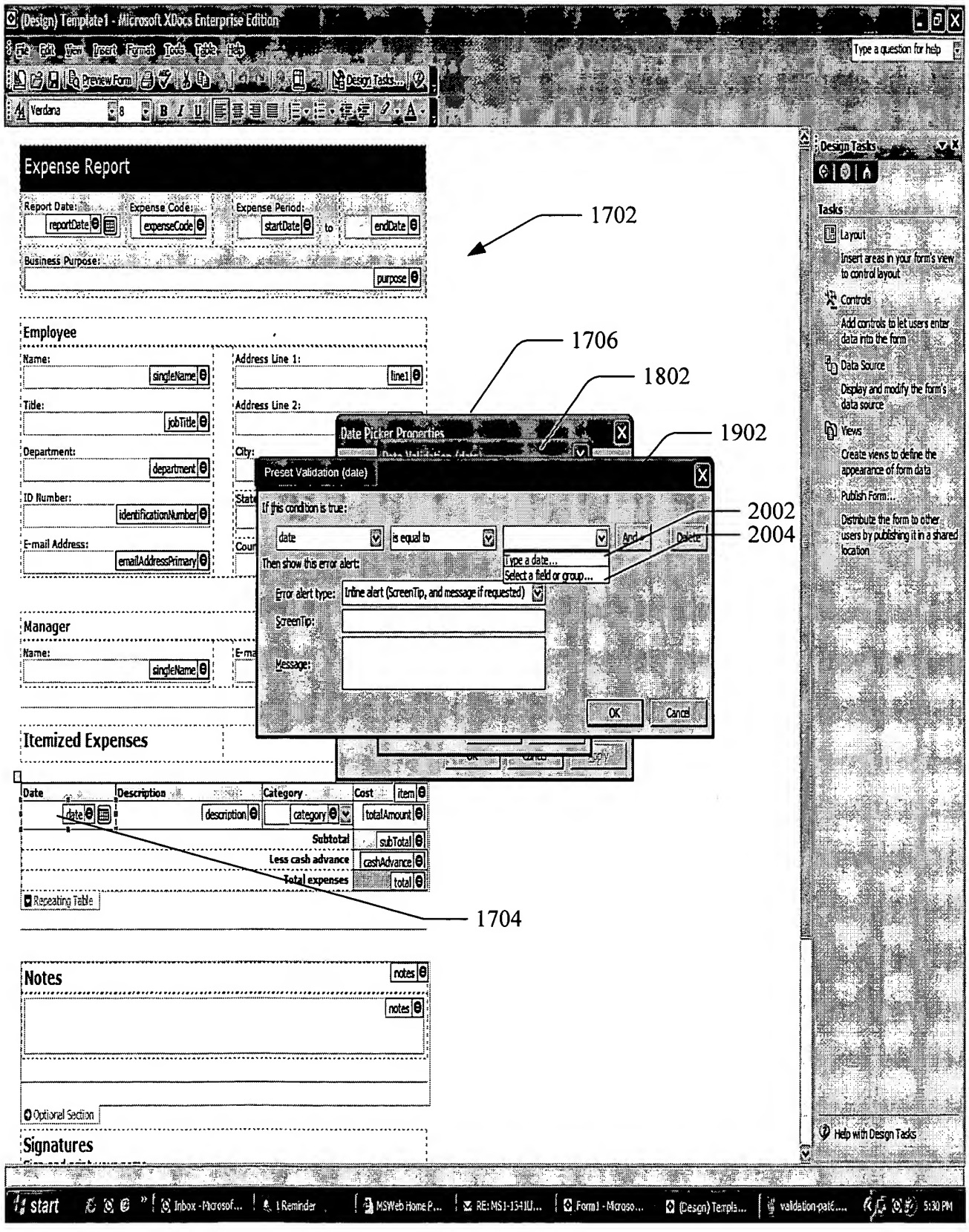

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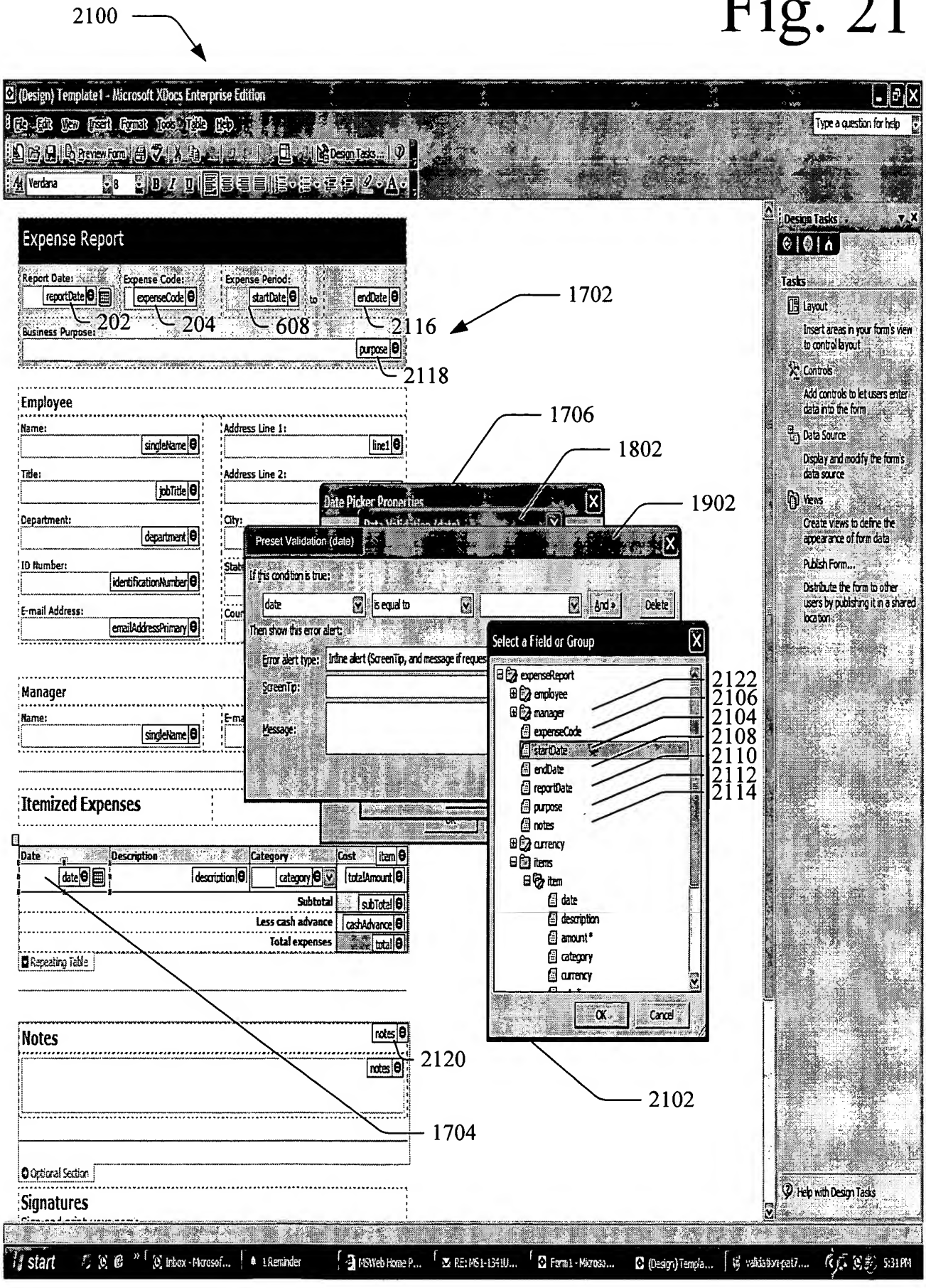
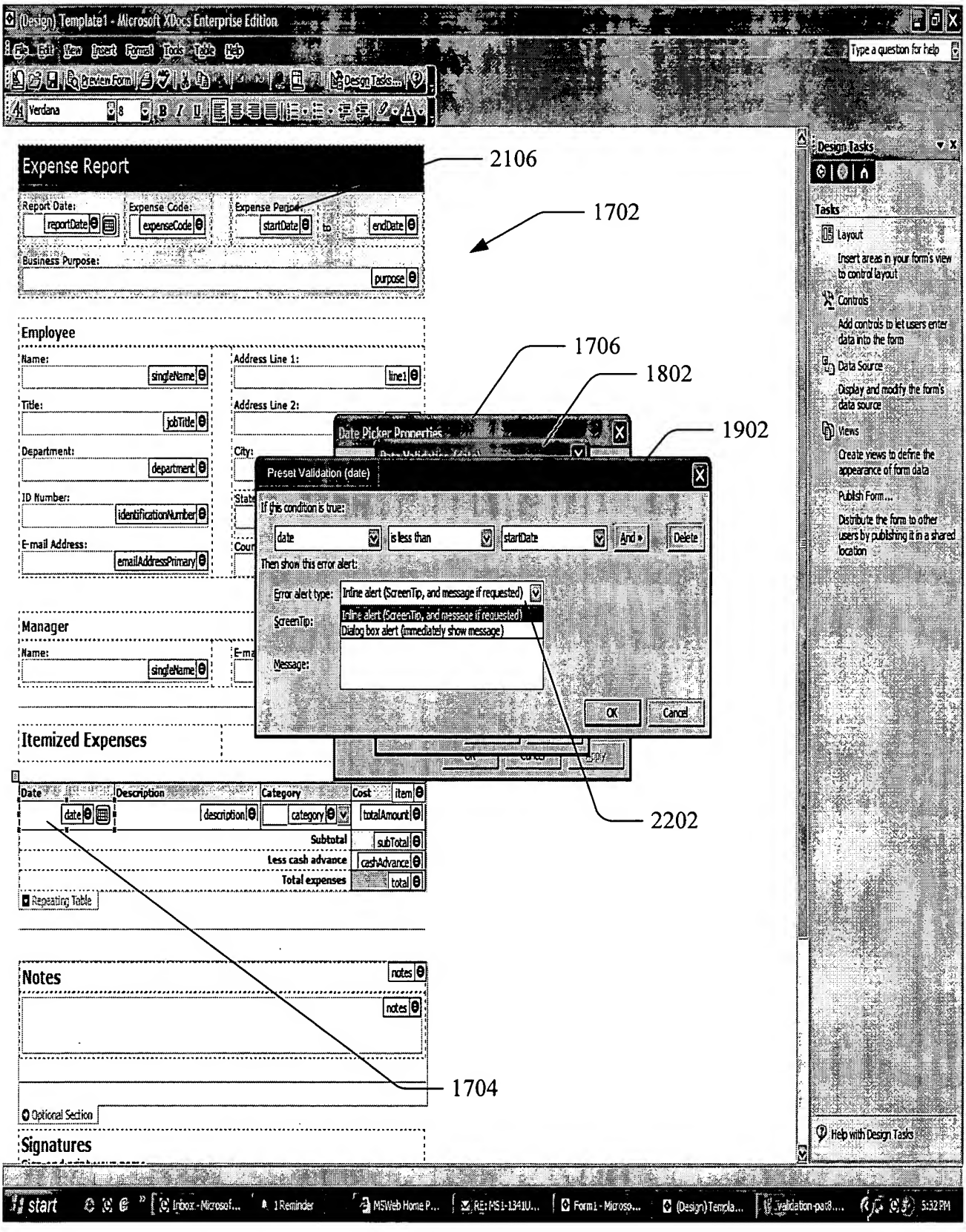
Fig. 21



2200

Fig. 22


(Design) Template1 - Microsoft XDocs Enterprise Edition
Expense Report
2106
1702
Report Date:
reportDate
Expense Code:
expenseCode
Expense Period:
startDate
to
endDate
Business Purpose:
purpose
Employee
Name:
singleName
Address Line 1:
line1
Title:
jobTitle
Address Line 2:
Department:
department
City:
ID Number:
identificationNumber
E-mail Address:
emailAddressPrimary
1706
1802
1902
Date Picker Properties
Preset Validation (date)
If this condition is true:
date
is less than
startDate
And
Delete
Then show this error alert:
Error alert type:
Inline alert (ScreenTip, and message if requested)
Dialog box alert (immediately show message)
ScreenTip:
Message:
OK
Cancel
Manager
Name:
singleName
Itemized Expenses
Date
Description
Category
Cost
item
date
description
category
totalAmount
Subtotal
subTotal
Less cash advance
cashAdvance
Total expenses
total
Repeating Table
2202
Notes
notes
notes
1704
Optional Section
Signatures
Design Tasks
Tasks
Layout
Insert areas in your form's view to control layout
Controls
Add controls to let users enter data into the form
Data Source
Display and modify the form's data source
Views
Create views to define the appearance of form data
Publish Form...
Distribute the form to other users by publishing it in a shared location
Help with Design Tasks
start
5:32 PM

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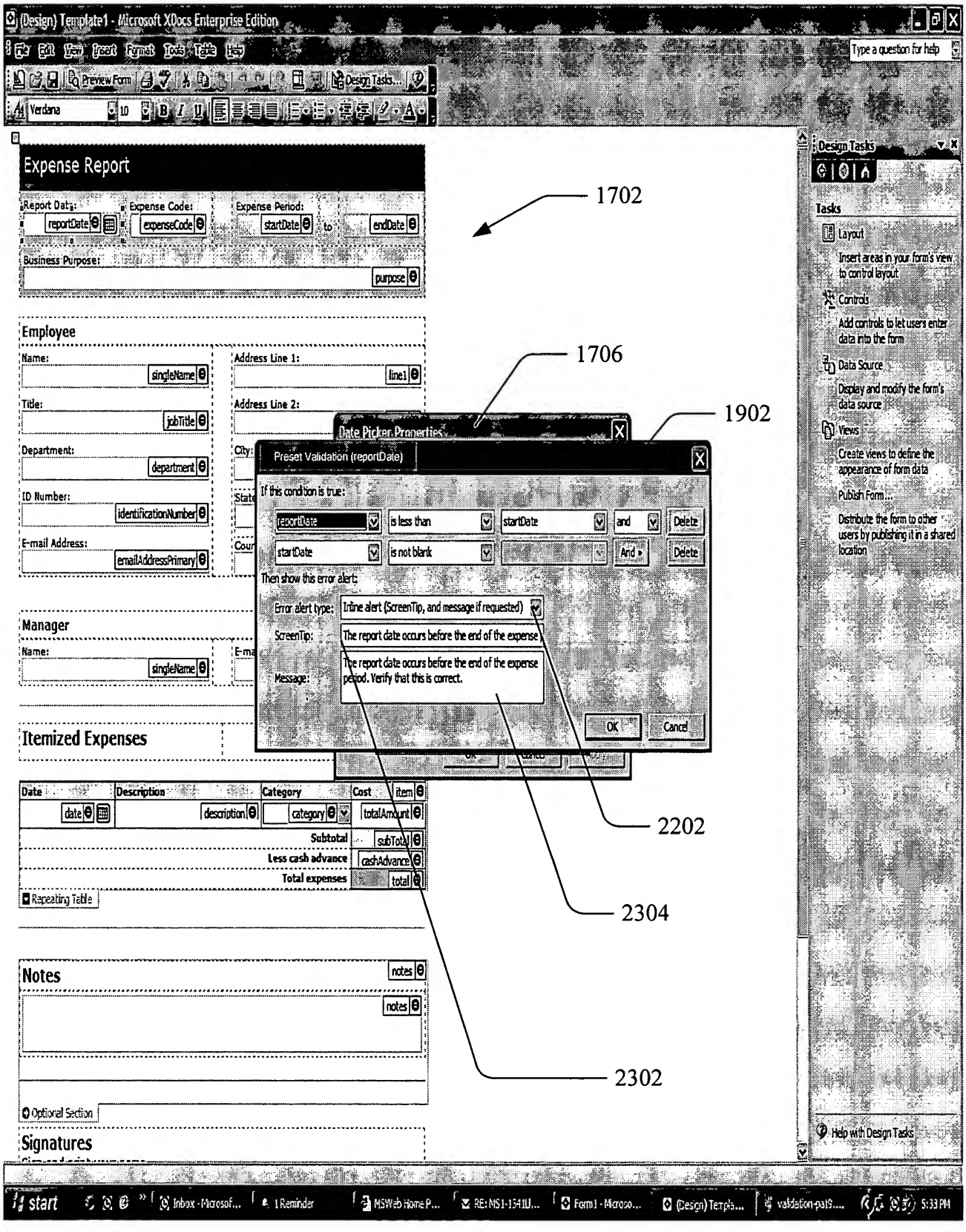
2300

Fig. 23



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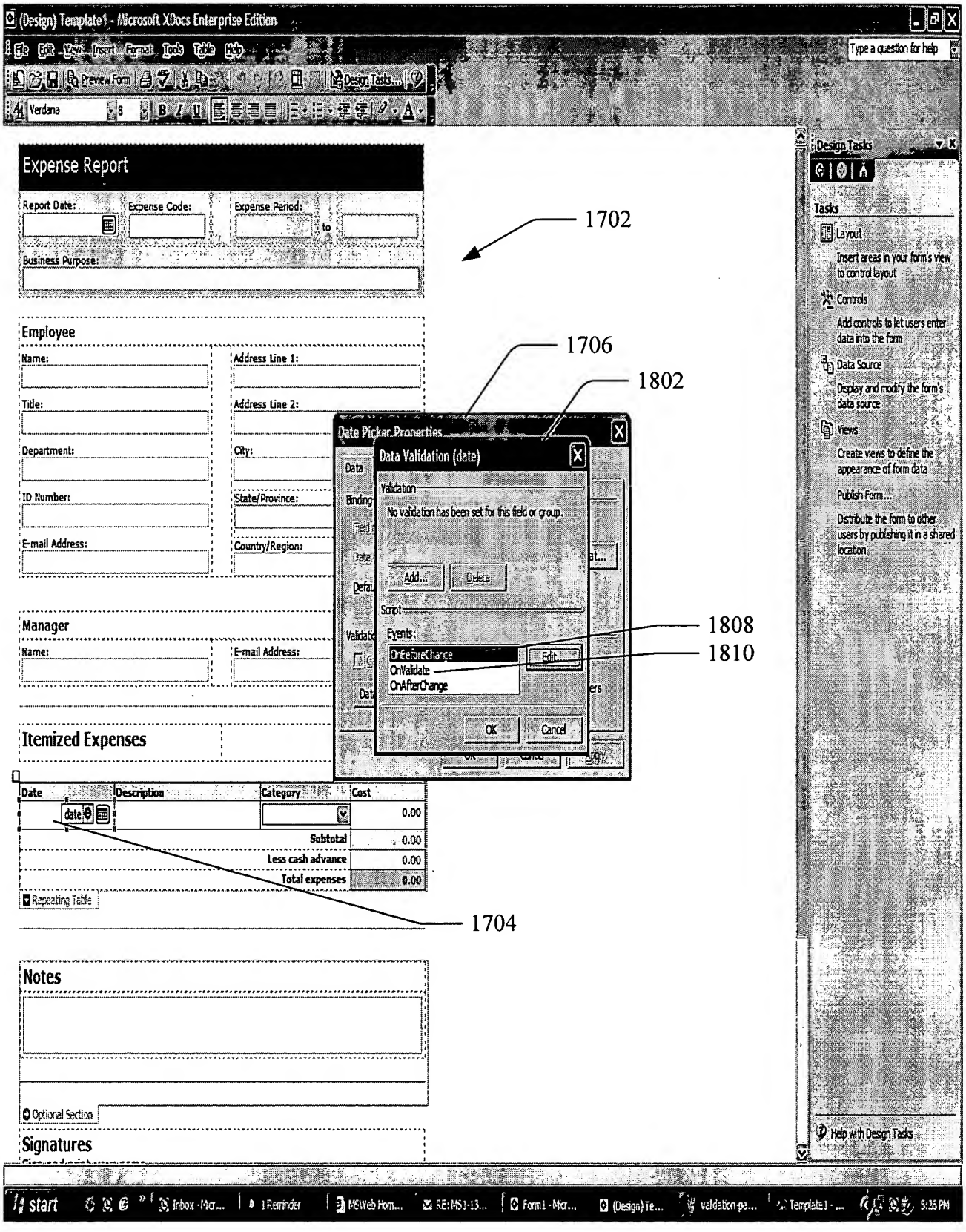
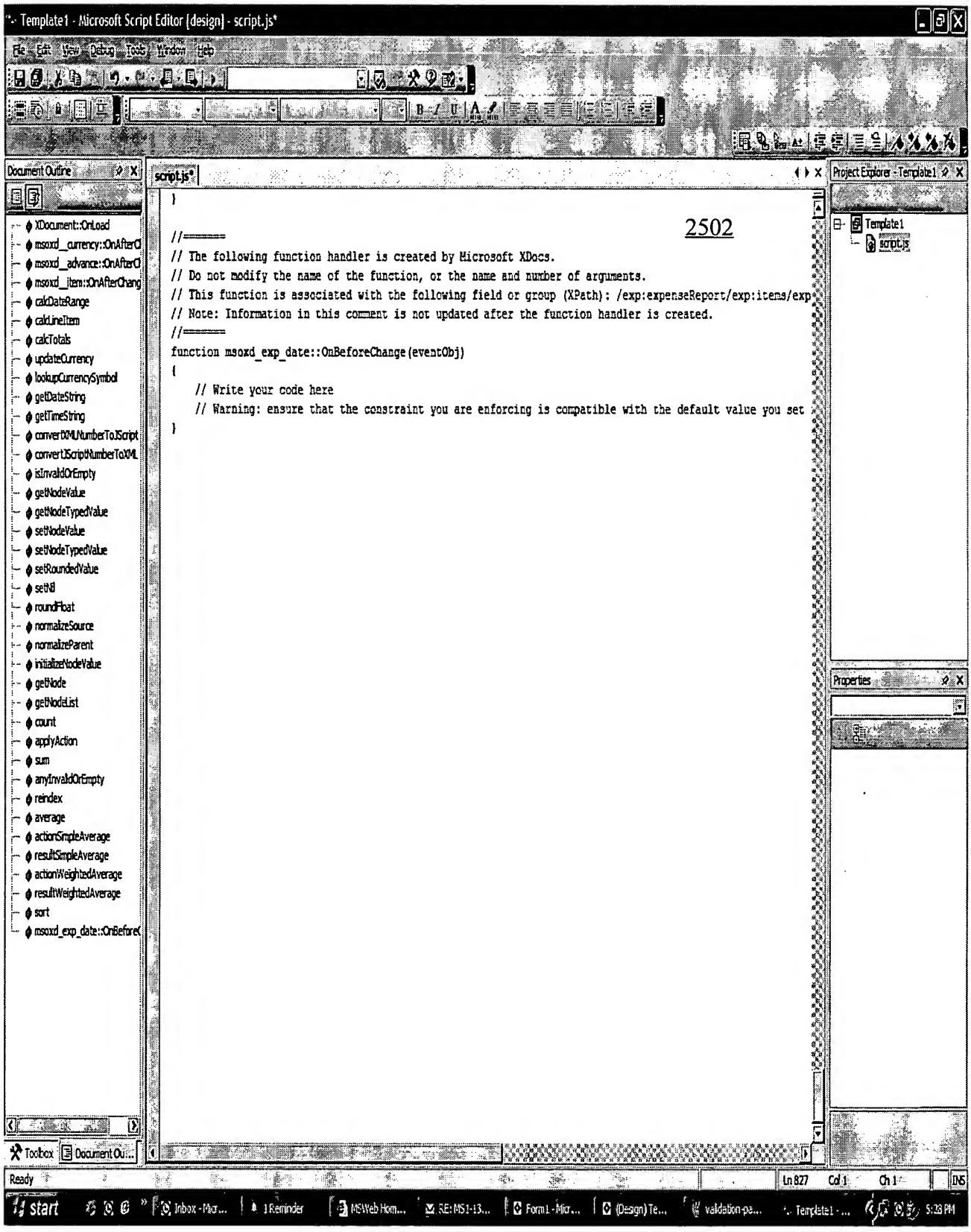
2400

Fig. 24



2500

Fig. 25


Template1 - Microsoft Script Editor [design] - script.js*
File Edit View Debug Tools Window Help
Document Outline
script.js*
Project Explorer - Template1
Template1
script.js
Properties
2502
//======
// The following function handler is created by Microsoft XDocs.
// Do not modify the name of the function, or the name and number of arguments.
// This function is associated with the following field or group (XPath): /exp:expenseReport/exp:items/exp
// Note: Information in this comment is not updated after the function handler is created.
//======
function msoxd_exp_date::OnBeforeChange(eventObj)
{
// Write your code here
// Warning: ensure that the constraint you are enforcing is compatible with the default value you set
}
XDocument::OnLoad
msoxd_currency::OnAfterC
msoxd_advance::OnAfterC
msoxd_item::OnAfterChang
calcDateRange
calcLineItem
calcTotals
updateCurrency
lookupCurrencySymbol
getDateString
getTimeString
convertXMLNumberToJScript
convertJScriptNumberToXML
isInvalidOrEmpty
getNodeValue
getNodeTypedValue
setNodeValue
setNodeTypedValue
setRoundedValue
setNil
roundFloat
normalizeSource
normalizeParent
initializeNodeValue
getNode
getNodeList
count
applyAction
sum
anyInvalidOrEmpty
reindex
average
actionSimpleAverage
resultSimpleAverage
actionWeightedAverage
resultWeightedAverage
sort
msoxd_exp_date::OnBefore
Toolbox
Document Ou...
Ready
Ln 827 Col 1 Ch 1
start
Inbox - Micr...
1 Reminder
MSWeb Hom...
RE: MS1-13...
Form1 - Micr...
(Design) Te...
validation-pa...
Template1 - ...
5:28 PM

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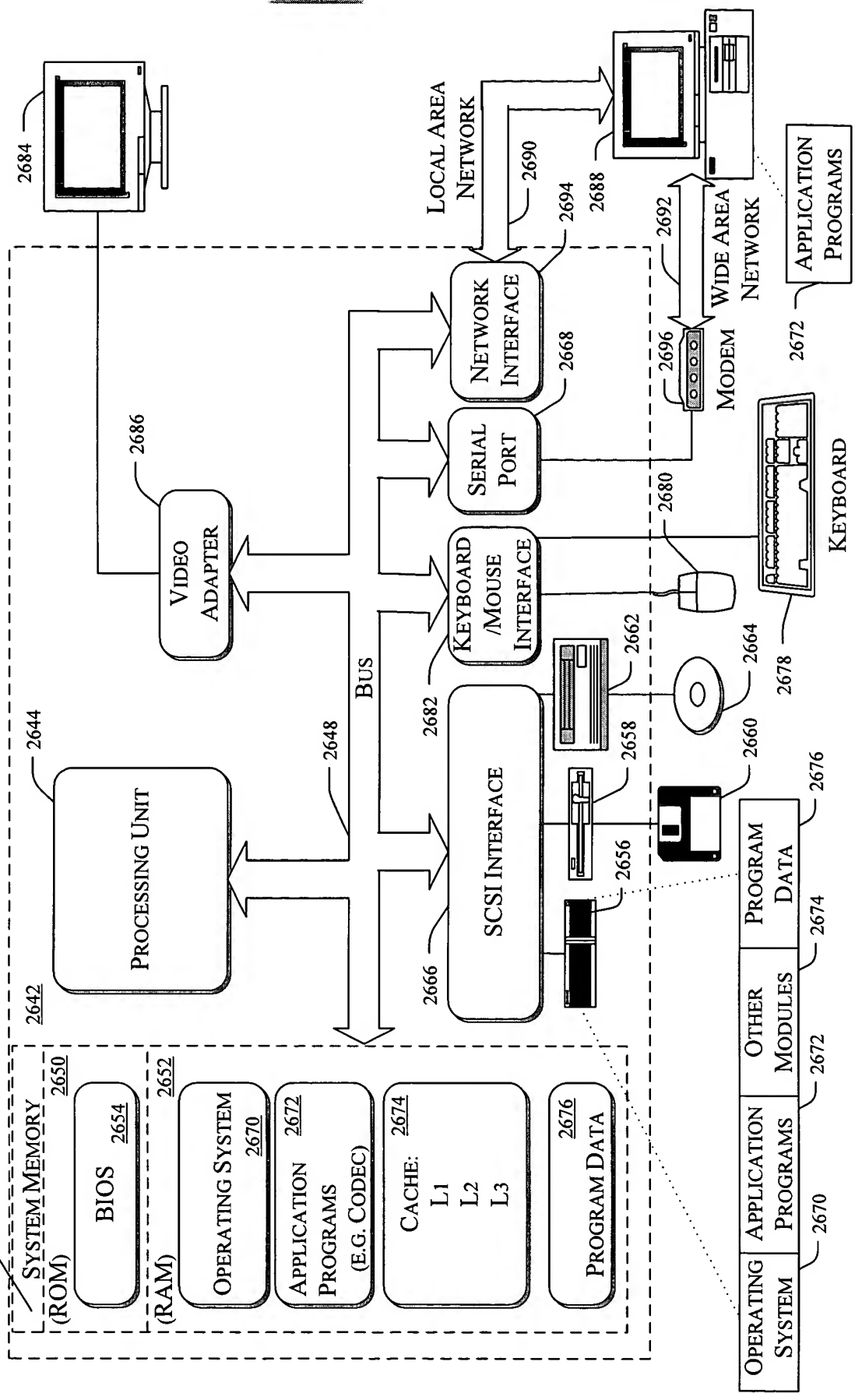
Fig. 26